

REMARKS

This is intended as a full and complete response to the Office Action dated May 23, 2003, having a shortened statutory period for response set to expire on August 23, 2003. Please reconsider the drawings, specification, and claims pending in the application for reasons discussed below.

With regard to the drawings, the Examiner objects to Figures 6A, 6B, 8B, 12, 14, 15, 16B, and 17 for failing to comply with 37 CFR §1.84(p)(5) because they include reference sign(s) not mentioned in the description. Applicant respectfully suggests that these "reference sign(s)" were omitted as a result of typographical or clerical errors and it is obvious from the context of the descriptions in the specification where the "reference sign(s)" should have been included. The proposed amendments to the specification correct these typographical and/or clerical errors. However, Applicants respectfully point out that the objection to tag "1510" is in error. Tag "1510" is referenced multiple times in the specification, see page 18 in lines 11-18. Also, two sentences were added to the end of the paragraph on page 20 between lines 27 and 28 to add the tags 1636 and 1638. The support for the first added sentence ("The error is handled 1636 if the mismatch exists.") is found, for example, in Figure 16B showing an indication of a "YES" along with the arrow interconnecting "MISMATCH?" (element 1634) and "HANDLE ERROR" (element 1636). The support for the second added sentence ("Otherwise, the process is done 1638.") is found, for example, in Figure 16B showing an arrow interconnecting "MISMATCH?" (element 1634) and "DONE" (element 1638). Accordingly, no new matter is added by these amendments. Therefore, Applicants respectfully request that the amendments be entered and these objections be withdrawn.

The Examiner objects to Figures 6A, 6B, 8B, 12, 14, 15, 16B, and 17 for failing to comply with 37 CFR §1.84(p)(5) because they do not include reference sign(s): "tag 1511" (pg. 18, line 18); and "method 1600" (pg. 19, line 17). Applicants respectfully suggest that these "reference sign(s)" were omitted from the drawings as a result of typographical or clerical errors and it is obvious from the context of the descriptions in the specification where the "reference sign(s)" should have been included. The

proposed amendments to the drawings, Figures 15 and 16, correct these typographical and/or clerical errors. No new matter was added to these drawings. Therefore, Applicants respectfully request that the proposed drawing corrections be entered and these objections be withdrawn.

Further, the Examiner objects to Figure 15 for failing to comply with 37 CFR §1.84(p)(4) because "1542" has been used to designate both "identification tag" and "various flags" of pg. 19, line 13. Applicants respectfully suggest that as a result of a typographical or clerical error, "1542" was identified for "identification tag" and it is obvious from the context of the descriptions in the specification and Figure 15 that "1541" should have been identified for "identification tag". The proposed amendment to the specification of pg. 19 at line 13 corrects this error and no new matter was added. Therefore, Applicants respectfully request that the corresponding proposed amendment to pg. 19 at line 13 be entered and this objection be withdrawn.

With regard to the specification, the Examiner objects to the use of the trademark "Java" for failing to be capitalized and accompanied with generic terminology. The Examiner also notes that although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner that might adversely affect their validity as trademarks. Manual of Patent Examining Procedure §608.01(v) states (emphasis added):

Although the use of trademarks having definite meanings is permissible in patent applications, the proprietary nature of the marks should be respected. **Trademarks should be identified by capitalizing** each letter of the mark (in the case of word or letter marks) **or otherwise indicating the description of the mark** (in the case of marks in the form of a symbol or device or other nontextual form). Every effort should be made to prevent their use in any manner which might adversely affect their validity as trademarks.

Applicants respectfully suggest that "Java" is accompanied in each instance throughout the application with a registered trademark symbol "®" to "otherwise indicate the description of the mark" of Sun Microsystems, Inc., that the Manual of Patent Examining Procedure is written in permissive language not mandatory language, i.e., "[t]rademarks should" rather than trademarks "shall", and that inclusion of the symbol

"®" is as respectful to the mark as capitalization. Thus, Applicants believe that use of "Java®" throughout the application is respectful of the trademark.

Further, Applicants believe that the meaning associated with "Java®" is sufficiently communicated in the specification and that addition of "the generic terminology" is unnecessary. Manual of Patent Examining Procedure §608.01(v) states:

Names used in trade are permissible in patent applications if:

- (A) Their meanings are established by an accompanying definition which is sufficiently precise and definite to be made a part of a claim, or
- (B) In this country, their meanings are well known and satisfactorily defined in the literature.

The meaning of "Java®" is widely used and well known in the industry, at least in the United States, and defined thoroughly in literature. In addition, the specification describes the invention in general terms and provides specific examples of how the invention may be embodied via "Java®" implementations. In particular, the specification defines classes and methods and then provides examples of classes and methods that may be used in embodiments of the invention as "Java® classes" and "Java® methods". The following examples illustrate their use:

This would not be a problem for purely procedural subroutines, but when the subroutines have static storage of one form or another (***including the static data structures associated with C++ or Java® classes***) then errors will result unless a single static storage image is somehow shared between all copies. (Specification, Background, pg. 3, lines 11-15; emphasis added).

The present invention functions by dividing categories (or subcategories of the categories) of static items storage into two super-categories: Those categories that are unique to an individual compiled instance of a subroutine, and those categories that are shareable between individual compiled instances, provided that they all reflect the same source version. Note that there may be some items that may be placed into either super-category, as they are not malleable (and hence don't need to be shares) but also do not contain information unique to the particular compiled instance of a subroutine. ***Such things as the name of the Java® class would fall into this group.*** (Specification, Detailed Description of the Preferred Embodiment, pg. 10, lines 27-30 and pg. 11, lines 1-4; emphasis added).

When a compiler determines that a subroutine (*.g., a Java® method or other procedure*) should be copied into a compilation unit where it was not already defined, a "clone" copy of the permanent data structures for the containing class is also made. (Specification, Detailed Description of the Preferred Embodiment, pg. 11, lines 11-13; emphasis added).

Since "Java®" is well defined, respectfully used, and used in a manner to further describe general descriptions of the invention by example, Applicants respectfully request that the objections related to "Java®" be withdrawn.

Claims 1-28 are pending in the application. Claims 1-28 remain pending following entry of this response.

Claims 7, 16, 22, 25, 26, and 28 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention because the term "Java®" is mutable and indefinite. More specifically, the Examiner's rejection states that "[u]se of the trademarked term makes the claims dependent on a technology which only has meaning as defined by Sun Microsystems" and is directed toward claims that include the phrases: "Java® classes", "Java® method" and "Java® methods". Applicants respectfully traverse the rejection.

As discussed above, the meaning of "Java®" is well known in the industry and thoroughly defined in literature and, after general descriptions of classes and methods for use with embodiments of the invention, the specification describes specific examples of the classes and methods that conform to the general definitions including "Java® classes" and "Java® methods" (see the quotes above). Since the phrases "Java® classes" and "Java® methods" conform to the general definitions of classes and methods described in the specification and, in addition, are subject to the meaning of "Java®" that is well known in the industry and thoroughly defined in literature, the meanings of the phrases "Java® classes" and "Java® methods" are definite and well defined. Possible future changes in the meaning of "Java®" alluded to by the Examiner, whether by Sun Microsystems, Inc. or by other sources, that would significantly contradict descriptions of classes and methods described in the specification, may then fall outside the scope of the meanings of the phrases "Java® classes" and "Java®

methods” as defined by the specification, but only to the extent that future changes in the meaning of “Java®” are contradictory. Accordingly, Applicant respectfully requests that the rejections of claims 7, 16, 22, 25, 26, and 28 be withdrawn and the claims be allowed.

Claims 1-21, 23, and 24 stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Evans et al.* (US 5,805,899; hereinafter *Evans*). Applicants respectfully traverse the rejection.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Furthermore, the identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).

With regard to independent claims 1, 10, and 17, the Examiner’s rejection states:

As per claims 1, 10, and 17, *Evans* teaches, “copying each of said external resolution items into said one compilation unit to form respective internal resolution items” (*Evans*, col. 2, ll. 8-11);

The specification describes an embodiment of “copying each of said external resolution items into said one compilation unit to form respective internal resolution items” on page 12 at lines 23-25 (emphasis added):

At step 1925, a ***copy of the called external subroutine or other addressable item, along with a version indicium*** of the external subroutine or other addressable item ***is copied into the compilation unit.***

Evans (in col. 2, ll. 8-11), however, does not copy “external resolution items into said one compilation unit to form respective internal resolution items.” *Evans*, simply copies a version definition and a version symbol into a versioned object. *Evans*, in col. 2 at lines 8-17 states (emphasis added):

... At build time, a link-editor ***adds data to a versioned object defining all available versions of the object (a version definition section and a version symbol section)***. At build time the link-editor adds data to the software application defining the version requirements of the software application S (a version dependency section). ***At runtime, a runtime linker verifies that th requirements of th software application***

match the version definition stored in the objects themselves, i. ., that the versioned object need d by th software application is available to the runtime linker.

Evans copies data to verify the version of an object and verifies the object is correct at runtime rather than copying the "external resolution items into said one compilation unit." Since *Evans* does not anticipate this limitation, *Evans* does not anticipate claims 1, 10, and 17. Thus, Applicants respectfully request that the rejection of claims 1, 10, and 17 be withdrawn and those claims be allowed.

Further, since the independent claims 1, 10, and 17 include limitations that are not anticipated by *Evans*, the claims dependent upon claims 1, 10, and 17 (dependent claims 2-7, 11-16, and 18-21) also include limitations that are not anticipated by *Evans* and are also in condition for allowance. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Accordingly, Applicants request that the rejections with respect to dependent claims 2-7, 11-16, and 18-21 also be withdrawn and the claims be allowed.

With regard to independent claim 8, the Examiner's rejection states:

As per claim 8, *Evans* discloses, "comparing ... cloned and external entities" (*Evans*, Fig. 2b, item 114).

The Examiner suggests that claim 8 is anticipated but provides no supporting evidence from *Evans* that another limitation of claim 8, the element "executing said cloned called entity in the case of said version identifiers comparing favorably," is anticipated by *Evans*. Since each and every element of claim 8 must be anticipated by *Evans*, the Office Action does not provide a prima facie case that claim 8 is anticipated by *Evans*. Thus, Applicants respectfully request that the rejection be withdrawn and claim 8 be allowed.

Further, since a prima facie case has not been established for independent claim 8, a prima facie case has not been established to support a rejection of the claim dependent upon claim 8 (dependent claim 9), so claim 9 is also in condition for allowance. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Accordingly, Applicants request that the rejection with respect to dependent claim 9 also be withdrawn and the claim be allowed.

Claims 22-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Evans* and *Nally et al.*, (US 6,298,478; hereinafter *Nally*). Applicant respectfully traverses the rejection.

To establish a prima facie case of obviousness, three basic criteria must be met. *Manual of Patent Examining Procedure* §2142. First, there must be a suggestion or motivation to modify or combine the references. *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success in the modification or combination. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097, 231 USPQ 375, 379 (Fed. Cir. 1986). Finally, the modification or combination must teach or suggest all of Applicants' claim limitations. *In re Royka*, 490 F.2d 981, 985, 180 USPQ 580, 583 (CCPA 1974).

With regard to claim 22, the Examiner's rejection states that *Evans* does not disclose "resolving Java® methods ... outside said common compilation in the event of a version conflict" but *Nally* (col. 18, ll. 24-33) does disclose the use of "Java® methods" in an internal and external role if the versioning conflicts.

Neither *Nally* nor *Evans* teach or suggest all the limitations of claim 22. In particular, claim 22 describes a framework for not just "resolving Java® methods" but "resolving Java® methods" as "cloned versions of Java® methods within a compilation unit." Claim 22 states (emphasis added):

A framework for loading class data structures prior to execution and for resolving called Java® methods, **said framework preferentially resolving said called Java® methods as cloned versions of Java® methods within a compilation unit** common to a calling Java® method, said framework resolving respective called Java® methods outside said common compilation unit in the event of a version conflict between said respective cloned and external Java® methods.

As discussed above, *Evans* copies version definitions and version symbols. However, *Evans* does not teach or suggest "cloned versions of Java® methods within a compilation unit."

Nally, in col. 18 at lines 24-33, describes a process of locating a version of an entity bean by going up the processing chain to find the correct version of the entity bean (emphasis added):

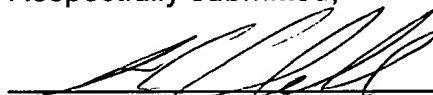
When it is determined that an application or application user attempts to access an EJB for update (i.e. to write to the EJB) (Block 800), the EJB Object for the EJB being accessed seeks the current version in the view for the currently-active transaction (Block 805). ***If a version of the entity bean for this EJB is not found for the current transaction (Block 810), the processing goes up the transaction chain, checking the view for each transaction to see if a version of the entity bean can be found in the transaction chain (Block 815).***

The quotations of *Evans* and *Nally*, although discussing an ability to detect and handle different versions of code, do not teach or suggest "cloned versions of Java® methods within a compilation unit." As such, the combination of *Evans* and *Nally* do not suggest or teach all the limitations of claim 22. Therefore, Applicants respectfully that the rejection be withdrawn and claim 22 be allowed.

Further, as all the limitations of independent claim 22 have not been taught or suggested by the combination of *Evans* and *Nally*, the claims dependent upon claim 22 (dependent claims 23-28) incorporate by reference limitations that are not taught or suggested by the combination of *Evans* and *Nally* and are also in condition for allowance. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Accordingly, Applicants request that the rejections with respect to dependent claims 23-28 be withdrawn and the claims be allowed.

In conclusion, the references cited by the Examiner, neither alone nor in combination, teach, show, or suggest the claims of the present invention. Having addressed all issues set out in the Office Action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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